

**REMARKS**

Reconsideration of the application identified in caption, pursuant to and consistent with 37 C.F.R. §1.111 and in light of the remarks which follow, is respectfully requested.

In the Official Action, claims 1-3 and 11 stand rejected under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 3,920,879 (*Segal et al*) in view of German Patent Document No. 1 595 496 (*GB '496*). Withdrawal of this rejection is respectfully requested for at least the following reasons.

Claim 1 is directed to a multilayer structure comprising at least one internal layer and an external layer, wherein the external layer is the outermost layer of the multilayer structure, wherein at least the internal layer is formed from a composition comprising at least one thermoplastic polyamide and at least one impact-resistance modifier present at a concentration by weight of between 10 and 50% of said composition, and in that at least the external layer is formed from a composition comprising as a polymer matrix a polyamide composition comprising: (i) a polyamide thermoplastic copolymer obtained by copolymerization of  $\epsilon$ -caprolactam with at least one of the monomers comprising: an amino acid comprising at least 9 carbon atoms, or a corresponding lactam, or a mixture of hexamethylenediamine with a diacid comprising at least 9 carbon atoms, the ratio by weight between the  $\epsilon$ -caprolactam and the total amount of hexamethylenediamine and diacid and/or said amino acid or the corresponding lactam being between 4 and 9, or (ii) a mixture of at least said thermoplastic polyamide copolymer (i) and at least one second thermoplastic polyamide or copolyamide obtained by polymerization of monomers comprising fewer than 9 carbon atoms, the content by weight of the second thermoplastic polyamide or copolyamide in the polymer matrix being between 0 and 80% by weight.

*Segal et al* relates to a composite sheet consisting essentially of relatively low molecular weight polyamides which are reinforced with long glass fibers with or without additional particulate filler (col. 1, lines 8-12). *Segal et al* discloses that glass fiber-filled thermoplastic sheets of the invention are prepared from semicrystalline thermoplastic polyamide polymers (col. 5, lines 31-33). *Segal et al* also discloses an extensive list of various monomers at column 5, lines 42 to column 6, line 2.

*Segal et al* does not disclose or suggest each feature recited in claim 1. For example, as apparently acknowledged at page 3 of the Official Action, *Segal et al* fails to disclose or suggest that the ratio by weight between the  $\epsilon$ -caprolactam and the total amount of hexamethylenediamine and diacid and/or said amino acid or the corresponding lactam is between 4 and 9, as recited in claim 1.

It is also submitted that absent an improper resort to Applicants' own disclosure, one of ordinary skill in the art would not have been motivated to modify *Segal et al* by employing the recited materials which are copolymerized to obtain the polyamide thermoplastic copolymer recited in claim 1. As discussed above, *Segal et al* merely discloses an extensive list of monomers without any suggestion or guidance for selecting the recited materials which are copolymerized to obtain the recited polyamide thermoplastic copolymer. Clearly, *Segal et al*'s mere disclosure of such extensive list of monomers would not have motivated one of ordinary skill in the art to employ the recited polyamide thermoplastic copolymer obtained by copolymerization, without an improper reliance on Applicants' own disclosure.

*GB '496* fails to cure the above-described deficiencies of *Segal et al*. In this regard, the Patent Office has taken the following position at page 3 of the Official Action:

It therefore would have been obvious for one of ordinary skill in the art at the time Applicant's invention was made to have provided for a copolymer comprising a ratio by weight of 4 of caprolactam to the lactam

having 12 carbons in Segal et al in order to obtain a copolymer that is processed in an especially simple manner as taught by Amann et al.

Applicants respectfully but strenuously disagree with such assertion. While *GB '496* discloses compositions that can be further processed in an "especially simple manner," these compositions are markedly different from the glass fiber-reinforced composite disclosed by *Segal et al*. There is simply no recognition or suggestion that employing the amounts of materials disclosed by *GB '496* would have resulted in enabling the glass fiber-reinforced composite disclosed by *Segal et al* to be processed in an especially simple manner. Moreover, it is noted that *Segal et al* discloses that the use of the materials and processes thereof is beneficial for economic reasons and can enable rapid processing (col. 2, lines 52-59; col. 4, lines 9-11). As such, there is no motivation to modify the *Segal et al* composite in view of *GB '496* in light of the fact that *Segal et al* already discloses that employing its materials and processes yields cost effective results and rapid processing. Simply put, one of ordinary skill in the art would not have been motivated to modify *Segal et al* in the manner suggested by the Patent Office. Accordingly, withdrawal of the above rejection is respectfully requested.

Claims 4-9, 19-21 and 23-25 stand rejected under 35 U.S.C. §103(a) as being obvious over *Segal et al* in view of *GB '496*, and further in view of U.S. Patent No. 5,219,003 (*Kerschbaumer*). Claim 10 stands rejected under 35 U.S.C. §103(a) as being obvious over *Segal et al* in view of *GB '496* and further in view of U.S. Patent No. 5,256,460 (*Yu*). Claims 12 and 14-18 stand rejected under 35 U.S.C. §103(a) as being obvious over *Segal et al* in view of *GB '496* and *Kerschbaumer*, and further in view of European Patent Document No. 0 646 627 (*EP '627*). Claim 13 stands rejected under 35 U.S.C. §103(a) as being obvious over *Segal et al* in view of *GB '496* and *Kerschbaumer* and further in view of U.S. Patent No. 5,357,030 (*VanBuskirk et al*). Claim 22 stands rejected under 35 U.S.C. §103(a) as being

obvious over *Segal et al* in view of *GB '496* and *Kerschbaumer* and further in view of *Yu*.  
Claim 26 stands rejected under 35 U.S.C. §103(a) as being obvious over *Segal et al* in view  
of *GB '496* and further in view of U.S. Patent No. 4,881,576 (*Kitami et al*). Withdrawal of  
the above rejections is respectfully requested for at least the following reasons.

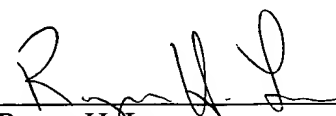
As discussed above, *GB '496* is not properly combinable with *Segal et al* in the  
manner suggested by the Patent Office. Further, the additional applied documents relied on  
by the Examiner, i.e., *Kerschbaumer*, *Yu*, *EP '627*, *VanBuskirk et al* and *Kitami et al* fail to  
cure the above-described deficiencies of *Segal et al*. For example, like *Segal et al*, the  
additional applied documents fail to disclose or suggest that the ratio by weight between the  
 $\epsilon$ -caprolactam and the total amount of hexamethylenediamine and diacid and/or said amino  
acid or the corresponding lactam is between 4 and 9, as recited in claim 1. Accordingly,  
withdrawal of the above §103(a) rejections is respectfully requested.

From the foregoing, further and favorable action in the form of a Notice of Allowance  
is believed to be next in order, and such action is earnestly solicited. If there are any  
questions concerning this paper or the application in general, the Examiner is invited to  
telephone the undersigned.

Respectfully submitted,

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Date: March 6, 2006

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